

Gulf of Mexico Harmful Algal Bloom Bulletin

10 December 2007

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: December 10, 2007

Conditions Report

NE Florida: A harmful algal bloom has been identified from southern Volusia to northern Indian River County. Patchy moderate impacts are possible today through Thursday from southern Volusia to northern Indian River County, with patchy high impacts possible in southern Brevard County today through Thursday, December 13.

SW Florida: A harmful algal bloom has been identified in northern Collier County. Patchy very low impacts are possible today through Thursday. No other impacts are expected in southwest Florida through Thursday, December 13.

Analysis

SW Florida: A harmful algal bloom has been identified alongshore northern Collier County, with background to low concentrations of *K. brevis* confirmed (12/3-6, FWRI). Clouds over the past few days limit analysis of the bloom extent in northern Collier County, but patches of elevated chlorophyll ($3\text{--}5\mu\text{g/L}$) are visible via satellite imagery (12/8) south and west of Cape Romano, centered at $25^{\circ}59'52''\text{N}$ $81^{\circ}53'23''\text{W}$ and $25^{\circ}50'1''\text{N}$ $81^{\circ}41'14''\text{W}$. High chlorophyll levels ($>10\mu\text{g/L}$) extend along the coast from southern Collier to northern Monroe County ($25^{\circ}47'9''\text{N}$ $81^{\circ}26'52''\text{W}$ to $25^{\circ}35'12''\text{N}$ $81^{\circ}17'18''\text{W}$). Very low concentrations of *K. brevis* have also been confirmed 12 miles west of Siesta Key (12/6, FWRI), as well as background concentrations onshore at Clearwater Pier (12/5, FWRI). Elevated chlorophyll features ($5\text{--}7\mu\text{g/L}$) are also visible in Lee County near Boca Grande (with a maximum at $26^{\circ}41'23''\text{N}$ $82^{\circ}17'52''\text{W}$) and south of Sanibel Island (with a maximum at $26^{\circ}23'23''\text{N}$ $82^{\circ}6'3''\text{W}$). Sampling of these features is recommended. Several patches of elevated chlorophyll ($2\text{--}5\mu\text{g/L}$) have also been detected offshore Monroe County, centered at $25^{\circ}31'2''\text{N}$ $81^{\circ}44'8''\text{W}$, $25^{\circ}10'25''\text{N}$ $81^{\circ}47'6''\text{W}$, $25^{\circ}0'14''\text{N}$ $81^{\circ}51'17''\text{W}$, $24^{\circ}45'18''\text{N}$ $81^{\circ}47'19''\text{W}$, and $24^{\circ}43'3''\text{N}$ $81^{\circ}57'39''\text{W}$.

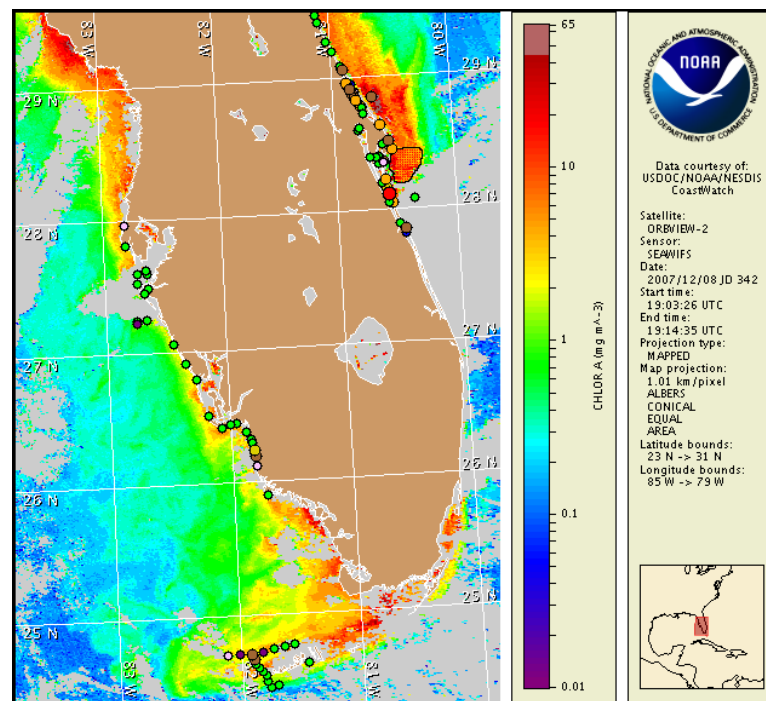
Upwelling-favorable winds through Thursday may increase the likelihood for intensification of the bloom in Collier County, and the harmful algae onshore Pinellas County.

Florida Keys Very low to low concentrations of *K. brevis* have been confirmed in the Florida Keys, north and west of Key West (12/3, FWRI). Chlorophyll levels remain elevated ($6\text{--}8\mu\text{g/L}$) north and west of Key West to $24^{\circ}34'27''\text{N}$ $82^{\circ}0'31''\text{W}$. Continued sampling in this area is recommended, as well as north of Marathon and east of Big Pine Key. Westward transport of the harmful algae is likely through Thursday. - Allen, Keller

Please refer to previous South Florida bulletin (number 2007-084) for analysis and information regarding northeast Florida.

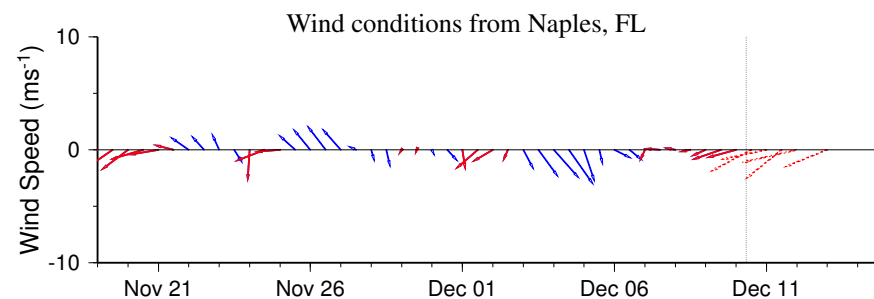
Please note the following restrictions on all SeaWiFS imagery derived from CoastWatch.

1. Data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Image products may be published in newspapers. Any other publishing arrangements must receive GeoEye approval via the CoastWatch Program.



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 3 to 6 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide:

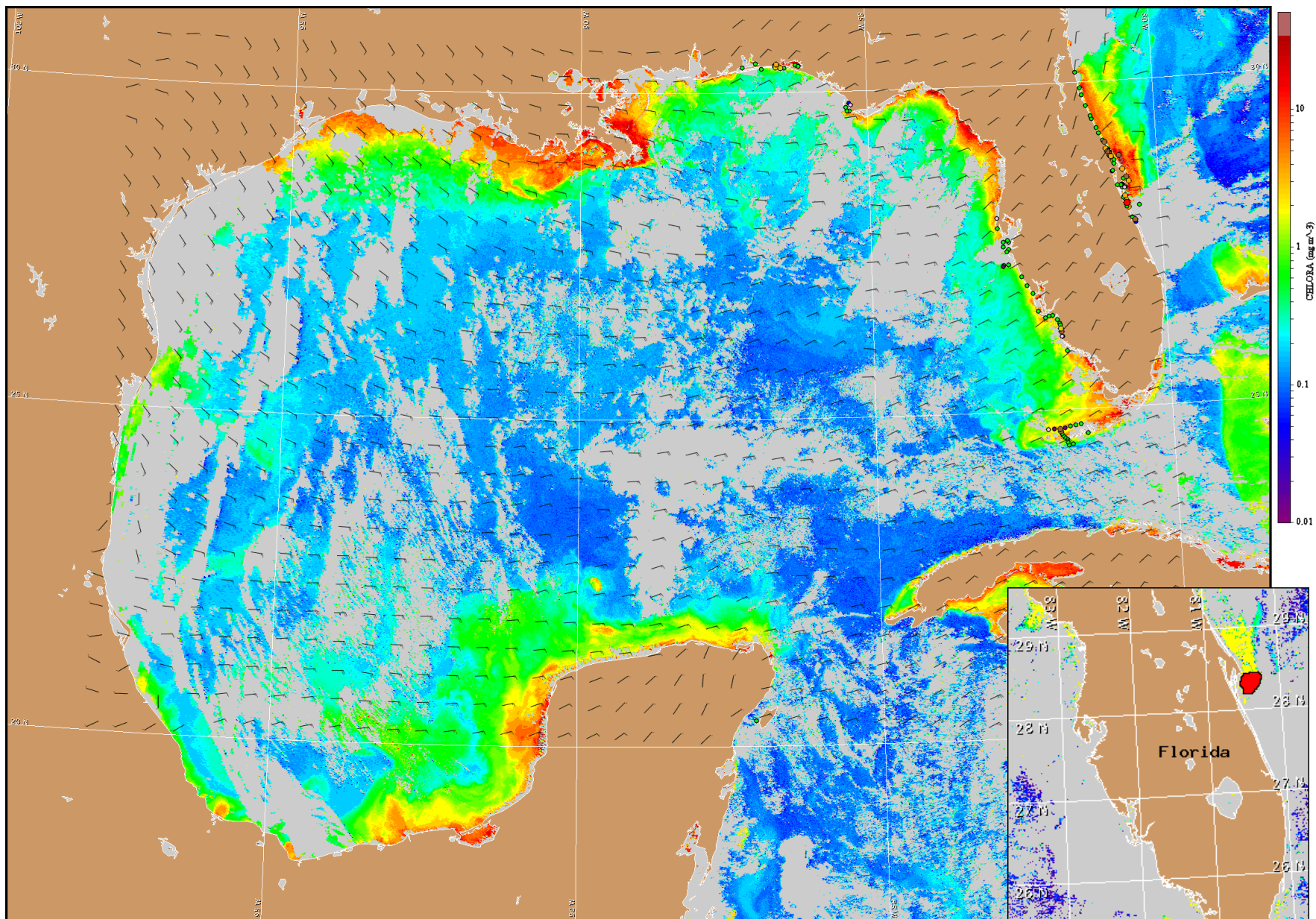
http://www.csc.noaa.gov/crs/habfs/habfs_bulletin_guide.pdf



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

SW Florida: Easterly winds today through Wednesday at 5-10 knots (3-5 m/s). Northeast-erly winds Thursday at 10 knots (5 m/s).

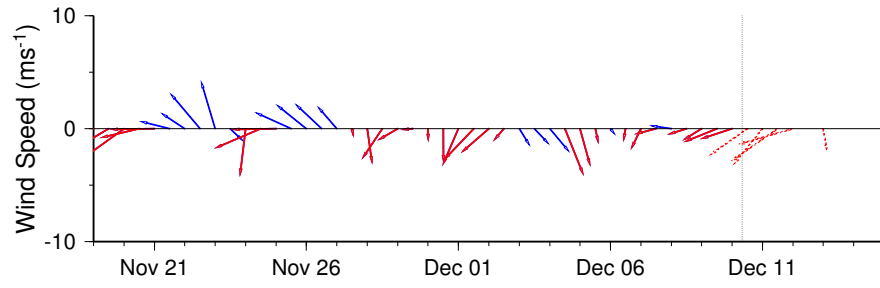
Florida Keys: Northeast to easterly winds at 15-20 knots (8-10 m/s) today through Thursday.



Satellite chlorophyll image and forecast winds for December 11, 2007 12Z with Cell concentration sampling data from December 3 to 6 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide: http://www.csc.noaa.gov/crs/habf/habfs_bulletin_guide.pdf

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).

Wind conditions from Venice Pier, FL



Wind conditions from Sand Key, FL

